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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/069,587	07/25/2002	Mark R. Goldstein	1947/25	3814
26646	7590	09/10/2004	EXAMINER	
KENYON & KENYON ONE BROADWAY NEW YORK, NY 10004			WILLIAMS, KEVIN D	
			ART UNIT	PAPER NUMBER
			2854	

DATE MAILED: 09/10/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/069,587

Applicant(s)

GOLDSTEIN ET AL.

Examiner

Kevin D. Williams

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 26 May 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-49 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-49 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 July 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 2, 3, 48, and 49 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 2 and 48 recite language directed to the lever being positioned in a recess. It appears that applicant is referring to the indentation 110 as the recess. The specification states that the indentation 110 is provided to provide a user easier access to the lever. In view of the drawings and specification, it does not appear that the lever is ever positioned "in" the recess.

### ***Double Patenting***

2. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

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3. Claims 1 and 8 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 1 of U.S. Patent No. 6,641,316. Although the conflicting claims are not identical, they are not patentably distinct from each other because the patent claim contains all of the limitations of the claims in the application.

4. Claims 2, 3, 8, 10-12, 15-17, 23, 25-27, 30-32, and 41-47 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1 and 2 of U.S. Patent No. 6,641,316 in view of Huellemeier (US 5,454,652).

Patent '316 teaches the claimed invention except for the first keyboard segment containing a recess where the locking mechanism includes a lever positioned either in or out of the recess, a ball affixed to one of the keyboard segments, the ball being hemispherical, a socket affixed to one of the keyboard segments, the keyboard segments being positionable relative to one another to reduce pronation and ulnar deviation, and the keyboard segments pivoting in both horizontal and vertical directions.

Huellemeier teaches a first keyboard segment containing a recess (at 66 in Fig. 3) where the locking mechanism includes a lever positioned either in or out of the recess, a ball 65 affixed to one of the keyboard segments, the ball being hemispherical, a socket 66,67 affixed to one of the keyboard segments, the keyboard segments being positionable relative to one another to reduce pronation and ulnar deviation, and the keyboard segments pivoting in both horizontal and vertical directions.

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It would have been obvious to one of ordinary skill in the art at the time of the invention to modify patent `316 to have the ball and socket as taught by Huellemeier, in order to position the keyboard segments in a variety of positions to accommodate a wide range of users.

5. Claims 4-7, 13, 14, 19-22, 28, 29, and 33-40 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1 and 2 of U.S. Patent No. 6,641,316 in view of Gray (US 6,234,961).

Patent `316 teaches the claimed invention except for a bearing element, the cam being connected to the bearing element, a ball and socket joint, a biasing element, and a lever.

Gray teaches a bearing element 30, the cam 36 being connected to the bearing element, a ball and socket joint, a biasing element 38, and a lever 34.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify patent `316 to have the locking mechanism taught by Gray, in order to utilize a locking mechanism that can be easily assembled and separated.

6. Claim 18 is rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1 and 2 of U.S. Patent No. 6,641,316 in view of Goldstein (US 5,543,790).

Patent `316 teaches the claimed invention except for a third keyboard segment, and a hinge coupling the second the third keyboard segments.

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Goldstein teaches a third keyboard segment 4 including keys and a hinge 7 coupling the second keyboard segment 3 and the third keyboard segment.

It would have been obvious to one of ordinary skill in the art at the time of the invention to additionally modify patent `316 to have the hinge coupling the second and third keyboard segments as taught by Goldstein, so as to provide additional adjustability in the keyboard in order to accommodate a wider range of users.

7. A rejection based on double patenting of the "same invention" type finds its support in the language of 35 U.S.C. 101 which states that "whoever invents or discovers any new and useful process ... may obtain a patent therefor ..." (Emphasis added). Thus, the term "same invention," in this context, means an invention drawn to identical subject matter. See *Miller v. Eagle Mfg. Co.*, 151 U.S. 186 (1894); *In re Ockert*, 245 F.2d 467, 114 USPQ 330 (CCPA 1957); and *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970).

A statutory type (35 U.S.C. 101) double patenting rejection can be overcome by canceling or amending the conflicting claims so they are no longer coextensive in scope. The filing of a terminal disclaimer cannot overcome a double patenting rejection based upon 35 U.S.C. 101.

Claims 9 and 24 are rejected under 35 U.S.C. 101 as claiming the same invention as that of claims 1 and 2 of prior U.S. Patent No. 6,641,316. This is a double patenting rejection.

The limitation "the ball" in line 9 of claim 9 lacks proper antecedent basis. It appears that applicant intended to claim the limitations of claims 8 in claim 9.

### ***Claim Rejections - 35 USC § 102***

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claims 48 and 49 are rejected under 35 U.S.C. 102(b) as being anticipated by Howell (US 5,613,786).

Howell teaches a method of adjusting a keyboard having first 22 and second 24 segments coupled by a joint comprising providing a locking mechanism 64 including a lever 60 sized to fit at least partially in a recess (at 60a,38b) in one of the segments when the lever is in a locked position, unlocking the locking mechanism by pivoting the lever away from the recess, moving the first and second segments in at least one plane, locking the locking mechanism by pivoting the lever to thereby lock a position of the first keyboard segment relative to the second keyboard segment, the first and second segments being moved in two planes.

### ***Claim Rejections - 35 USC § 103***

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claims 1-17 and 33-47 are rejected under 35 U.S.C. 103(a) as being unpatentable over Huellemeier (US 5,454,652) in view of Gray (US 6,234,961).

Huellemeier teaches of an adjustable keyboard having a first keyboard segment 11, a second keyboard segment 12, a joint 14 coupling the first keyboard segment and the second keyboard segment and allowing movement of the first keyboard segment and the second keyboard segment relative to one another and adapted to allow pivoting of the first keyboard segment and the second keyboard segment in both horizontal and vertical directions, the joint including a locking mechanism (Fig. 8), a first keyboard segment contains a recess (at 66 in Fig. 3), the locking mechanism including a knob 83 positioned either in or out of the recess in the first keyboard segment when the position of the first keyboard segment and the second keyboard segment is either locked or unlocked by the locking mechanism, the locking mechanism including a ball 65 and socket 66,67, the ball and socket being frictionally coupled when the locking mechanism is in a locked position, the ball and socket being urged towards one another when the locking mechanism is in a locked position, the socket maintaining substantially the same shape when the locking mechanism is in either a locked or unlocked position, a ball 65 being affixed to another of the keyboard segments, the ball being hemispherical, a socket element 66 being affixed to one of the keyboard segments, a ball-and-socket joint 14, where the keyboard segments are positionable relative to one another to reduce both pronation of a user's wrists and ulnar deviation of a user's wrists (col. 5, lines 30-40).

Huellemeier does not teach of the locking mechanism having a cam, lever, pin, biasing element, and movable bearing element having a hemispherical surface.



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Gray discloses a locking mechanism having a cam (36), a lever (34), a pin (Fig. 1 adj 36), biasing element (38), and movable bearing element 30 having a hemispherical surface.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Huellemeier to have the locking mechanism taught by Gray, in order to utilize a locking mechanism that can be easily assembled and separated.

12. Claims 18-23 and 25-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Huellemeier in view of Gray as applied to claims 1-17 and 33-47 above, and further in view of Goldstein (US 5,543,790).

Huellemeier in view of Gray teaches the claimed invention except for a third keyboard segment including keys and a hinge coupling the second keyboard segment and the third keyboard segment.

Goldstein teaches a third keyboard segment 4 including keys and a hinge 7 coupling the second keyboard segment 3 and the third keyboard segment.

It would have been obvious to one of ordinary skill in the art at the time of the invention to additionally modify Huellemeier to have the hinge coupling the second and third keyboard segments as taught by Goldstein, so as to provide additional adjustability in the keyboard in order to accommodate a wider range of users.

### ***Response to Arguments***

13. Applicant's arguments filed 5/26/2004 have been fully considered but they are not persuasive.

In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

Applicant argues that there is no motivation to combine the Gray reference with Huellemeier. Huellemeier teaches a keyboard device which uses a ball and socket joint to allow two keyboard segments to be positioned relative to each other. The Gray reference discloses a ball and socket joint that Gray describes as advantageous because it can be easily assembled and separated and when assembled provides substantial pivotal and rotational movement. One skilled in the art looking to improve upon the ball and socket joint of Huellemeier would be inclined to look to the Gray reference which also discloses a ball and socket joint. One skilled in the art would also be motivated to combine the ball and socket joint of Gray with the keyboard device of Huellemeier, since Gray teaches that the device is advantageous because it can be easily assembled and separated.

### ***Conclusion***

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin D. Williams whose telephone number is (571)


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272-2172. The examiner can normally be reached on Monday - Friday, 8:30am - 6:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew H. Hirshfeld can be reached on (571) 272-2168. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

KDW  
September 2, 2004



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